

CLAIMS

What is claimed is:

1. A digital interface device for facilitating key encryption of a digital signal which is communicated from a computer system to an associated peripheral device, where the associated peripheral device decrypts the communicated digital signal for use, the interface device comprising:

- 5 a digital output;
digital output formatting circuitry associated with said output;
a non-volatile RAM for containing a BIOS for controlling digital output formatting having a specific write-protectable area allocated for storing an encryption key flag at a flag address and encryption key data; and
10 said specific write-protectable area being rendered read-only when a predetermined flag value is stored at said flag address whereby encryption key data may be stored in said specific area of said non-volatile RAM in connection with storing said predetermined flag value at said flag address such that stored encryption data cannot be altered by a subsequent write operation to said non-volatile RAM.

2. A digital interface device according to claim 1 configured to receive either a first predetermined flag value at said flag address in association with key encryption data in said specific write-protectable area which first flag value indicates encryption enablement.

3. A digital interface device according to claim 1 configured to receive either a first predetermined flag value at said flag address in association with key encryption data in said specific write-protectable area which first flag value indicates encryption enablement or a second predetermined flag value at said flag address which second flag value indicates encryption disablement in which case the digital interface device is permanently disabled from using the key encryption.
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4. A digital interface device according to claim 1 configured to receive as said predetermined value any value other than a specific value which specific value enables writing into said write-protectable area.

5. A digital interface device according to claim 1 wherein said key flag is a combination of one or more values stored at the one or more flag addresses within said write protectable area.

6. A digital interface device according to claim 1 wherein the associated peripheral device is a digital display and said digital output is an output port for a digital video signal.

7. A digital interface device according to claim 6 which is configured as a digital video interface card.

8. A digital interface device according to claim 1 wherein said specific write-protectable area is at least 512k bytes and located at an address range higher than an address range reserved for a BIOS.

9. A method for producing digital interface devices comprising:
providing a digital interface device having a digital output, digital output formatting circuitry associated with said output, and a non-volatile RAM for containing a BIOS for controlling digital output formatting;
allocating a specific addressable area on said non-volatile RAM for storing an encryption key flag and encryption key data; and
rendering said specific area read-only when a predetermined key flag value is written in said specific addressable area at a key flag address.

10. A method according to claim 9 further comprising:
writing a first predetermined flag value at said key flag address along with key
encryption data in said specific area to enable key encryption.

11. A method according to claim 9 further comprising:
writing a first predetermined flag value at said key flag address along with key
encryption data in said specific area to enable key encryption; or
writing a second predetermined flag value at said key flag address to permanently
5 disable key encryption using said specific area.

12. A method according to claim 9 further comprising storing a specific value
in said key flag address at the time the specific addressable area is allocated wherein said
predetermined key value is any value other than said specific value.

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